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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/500,168

06/23/2004

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51876P637

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03/17/2008

EXAMINER

CZEKAJ, DAVID J

ART UNIT

PAPER NUMBER

2621

MAIL DATE

DELIVERY MODE

03/17/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/500,168	Applicant(s) LIM ET AL.	
	Examiner DAVID CZEKAJ	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8-13 and 18 is/are rejected.
- 7) ☒ Claim(s) 4-7 and 14-17 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/23/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 18 is rejected under 35 U.S.C. 101 because the claim does not meet the 35 U.S.C. 101 requirements (the claim has improper language regarding the recording medium). Please see the USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" in the Official Gazette notice of 22 November 2005. Note Annex IV Computer-Related Nonstatutory Subject Matter. The examiner suggests changing the preamble to read "A computer-based recording medium encoded with (stored thereon, embedded with, or embodying) a computer program, causing a computer to execute a method...".

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paek et al. (7143434), (hereinafter referred to as "Paek").

Regarding claim 1, Paek discloses an apparatus that relates to describing multimedia information (Paek: column 1, lines 15-18). This apparatus comprises

“a motion picture segmentation means for segmenting a motion picture temporally” (Paek: column 16, lines 29-40, wherein the segmentation is the extraction; column 23, lines 10-17), “a motion picture shape descriptor abstracting means for abstracting a shape descriptor from the segmented motion picture” (Paek: column 9, lines 1-24; column 14, lines 15-21; column 16, lines 30-40, wherein the abstracting is the feature extraction), and “a motion picture storing means for storing the shape descriptors” (Paek: column 17, lines 1-7, wherein the shape descriptors are stored in the description record). While Paek fails to explicitly disclose storing the descriptors as metadata, Paek does disclose storing the descriptors and performing a metasearch for the descriptors (Paek: column 17, lines 1-7 and 30-40). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the metadata storage in order to provide a fast and easy way to find data associated with objects.

Regarding claim 2, Paek discloses "abstracting shape information corresponding to one object from the picture" (Paek: column 16, lines 30-40), "abstracting shape vector descriptor sequence from the shape information" (Paek: column 14, lines 15-20, wherein the sequence is the code element), and "abstracting a shape descriptor from the descriptor sequence" (Paek: column 14, lines 15-20; column 16, lines 19-40, wherein the descriptor is made up of the value and code element).

Regarding claim 3, although not disclosed, it would have been obvious to use a variance or standard deviation shape descriptor (Official Notice). Doing so would have been obvious in order to easily indicate the change in the object.

Regarding claim 12, note the examiners rejections for claims 1-2.

Regarding claim 13, note the examiners rejection for claim 2.

4. Claims 8-11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over et al. (7143434), (hereinafter referred to as "Paek") in view of Kan et al. (6728314), (hereinafter referred to as "Kan").

Regarding claim 8, note the examiners rejection for claim 1, and in addition Paek discloses "arranging the motion picture shape descriptors in the order of similarity from small to large" (Paek: column 17, lines 35-45; column 18, lines 22-25, wherein the ranking indicates the order of similarity). However, Paek fails to disclose calculating the similarities as claimed. Kan teaches that prior art segmentation techniques cannot solve the problems of still object segmentation and inconvenience (Kan: column 2, lines 6-7). To help alleviate this problem, Kan discloses "calculating the similarity between the first shape descriptor and a second shape descriptor and outputting similar motion pictures" (Kan: column 2, lines 15-27; column 3, lines 28-34; column 6, lines 7-46, wherein the descriptors are compared). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the comparison taught by Kan in order to help reduce the inconvenience and help solve the problems of still object segmentation.

Regarding claim 9, note the examiners rejections for claims 1-2 and 8, and in addition, although not disclosed, it would have been obvious to use a second descriptor abstracting means (Official Notice). Doing so would have been obvious in order to provide a faster processing means by using two abstractors.

Regarding claim 10, Paek discloses "classifying the similarity in the order of distance from close to far" (Paek: column 18, lines 20-25 and 40-45; column 23, lines 15-40, wherein the motion and temporal features indicate the distance, the ranking orders the distances).

Regarding claim 11, although not disclosed, it would have been obvious to compute the similarity based on the Euclidian distance or SAD (Official Notice). Doing so would have been obvious in order to help keep the errors of the distance calculations at a minimum.

Regarding claim 18, note the examiners rejections for claims 1-2 and 8.

Allowable Subject Matter

5. Claims 4-7 and 14-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- | | | | |
|----|------------|---------|-----------------------|
| a. | US-6577679 | 06-2003 | Apostolopoulos |
| b. | US-6404814 | 06-2002 | Apostolopoulos et al. |

c. US-7023441 04-2006 Choi et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID CZEKAJ whose telephone number is (571)272-7327. The examiner can normally be reached on Mon-Thurs and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dave Czekaj/
Examiner, Art Unit 2621'
TC 2600